

Remark

Applicants respectfully request reconsideration of this application as amended. Claims 1, 9, 11, 16, 18-22 and 23 have been amended. The amendments are believed to clarify the claims and are not believed to be required by the prior art, nor by the Examiner's rejections. Claims 2, 17 and 24 have been cancelled. Therefore, claims 1, 3-16, 18-23 and 25-26 are present for examination.

35 U.S.C. § 101 Rejection

Claims 16-22 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. While the rejection is not fully understood, the claims are amended in an effort to traverse the rejection.

35 U.S.C. § 112 Rejection

Claims 16-22 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. While this rejection is also not understood, it is hoped that the same amendments will traverse this rejection as well.

35 U.S.C. § 102 Rejection

Chen

Claims 1, 2, 4-6, 9-13, 15-19, 21-24 and 26 are rejected under 35 U.S.C. §102(e) as being anticipated by Chen, U.S. Patent No. 6,975,638 ("Chen"). In the Response to Arguments, the Examiner asserts that in Chen, "the rates at which the packets admitted to packet pipeline 122 (move out of queues F1 and F2) are regulated by the traffic monitor

124 and traffic conditioner 126. Thus Chen indeed discloses of regulating the rates at which traffic moves out of the queues.”

The Examiner’s position requires that “queues” in Claim 1 be read onto the packet FIFO’s F1, F2 of Figure 7. The queues of Claim 1 are defined in the mapping operation. Looking at Claim 1, it recites, “mapping... based on the flow bundle into which the packet has been classified.” The flow bundle is in turn “based on the packet’s destination and path through the switch fabric.” So the packets in the queues are mapped based on destination and path.

The difference between the MMU and the packet pipeline and packet FIFO is that the MMU has a plurality of queues into which the packets are mapped based on their switching fabric egress port and QP. Col. 8, lines 230-25. As the Examiner notes, this information (egress port and QP) are obtained in the classification lookup process and prepended to the packet, but this information is not used to queue packets into the packet FIFO or into the packet pipeline. It is used only with the MMU. Thus only the MMU can possibly meet the definition of queues in Claim 1.

Accordingly, Claim 1 is allowable because Chen does not disclose regulating traffic moving out of the queues as recited in Claim 1.

Applicants note, additionally, that “path through the switch fabric” does not appear to be mentioned at all in Chen and therefore, even the MMU falls short of Claim 1.

The Examiner further asserts that “the claims do not specify whether the mapping is done before or after, there are no exclusions to when the mapping is performed.”

Applicants have earlier argued that in e.g. Claim 1, the mapping is performed before applying the traffic shaping algorithm.

Figure 7 of Chen makes it clear that incoming data packets are:

- a) Classified (C1, C2), then
- b) Placed in the Packet FIFO (F1, F2), then
- c) Placed in the Packet Pipeline 122, then
- d) Monitored 124/Conditioned 126/Scheduled 136, then
- e) Placed into MMU (Memory Management Unit) 132; and then
- f) Sent to the Switch Fabric 134.

In Claim 1, there is an order that is required by the connections between the operations. These connections are suggested in parentheses below. As an example, the packets cannot be classified until the path is determined because the classifying is based in part on the path. The resulting order of operations is as follows:

- a) Determining the path, then
- b) Classifying (based on the path), then
- c) Mapping into queues (based on the classification), then
- d) Queuing (into the mapped queues), then
- e) Regulating the traffic rate (traffic moves out of the queues).

The ordering is clearly different if the queues of the present invention is read onto the MMU 132, rather than onto the packet pipeline 122. This must be done as explained above. A quick look at the lists above clearly shows that Claim 1 is not anticipated. The differences in ordering further render the Claims allowable over the references.

While only Claim 1 has been discussed above, the remaining claims are believed to be allowable on the same grounds, *inter alia*. These are not addressed specifically in order not to unduly burden the Examiner.

35 U.S.C. § 103 Rejection

Chen and Hooman or Duffield

The remaining claims are rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Hooman, et al, U.S. Patent No. 7,155,716 (“Hooman”), or Duffield et al, U.S. Patent No. 6,452,933 (“Duffield”). These rejections rely on the Chen rejection discussed above and are traversed on the same grounds, *inter alia*.

Conclusion

Applicants respectfully submit that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicants respectfully request the rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.


Request for an Extension of Time

Applicants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
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